

Towards a Gender Quota

By Norma Schmitt

In 2016, a fixed gender quota will come into force in Germany, affecting the supervisory boards of listed companies that also have employee representation (full codetermination).¹ By as early as September 30, 2015, however, all companies will be obliged to set a self-imposed target quota – even companies that meet just one of these criteria; i.e., either listed or subject to codetermination. A variety of concerns have been expressed about the implementation of this law, including fears that the quota will impair company performance and the quality of the talent pool, or the belief that it discriminates against men and stigmatizes women. The present article examines these key criticisms on the basis of research findings to date. In conclusion, the advantages of a gender quota should allay these concerns since, in the long term, it contributes to dismantling gender stereotypes and consequently also mitigates the negative impact these stereotypes have on the selection of the best candidates for senior management positions.

With the aim of achieving gender parity in senior management in both the private sector and public administration, from 2016 onward, Germany will introduce a gender quota that will apply to all private-sector listed companies with employee representation on their supervisory boards as well as to public services. A decisive factor in the passing of this law was the considerable underrepresentation of women precisely in these spheres. The slow increase in the number of women in senior management positions did not reflect the rapid increase in their educational attainment; for years, women have equaled men in terms of their educational qualifications and, in some areas, even surpassed them.² Against this backdrop, there have been growing calls for government intervention.³ At the same time, the criticism has frequently been voiced that a quota would result in gender being a more decisive factor than the caliber of the candidate in appointments to top management positions.

However, this point of view ignores the possible impact of gender stereotypes on economic decisions and the concomitant unconscious gender bias.⁴ This could, for example, result in biased recruitment decisions which irrationally discriminate against suitable candidates on the basis of their gender.⁵

¹ The Act on Equal Participation of Women and Men in Executive Positions in the Private and Public Sector (Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen in der Privatwirtschaft und im öffentlichen Dienst) came into force May 1, 2015. Essentially, the law requires all listed companies with employee representation (full codetermination) to allocate at least 30 percent of seats on their supervisory boards to the underrepresented group (which is usually women), by January 1, 2016. This quota must be met across the entire board; however, in the interest of legal certainty this should apply to both shareholder side as well as employee representative side. Should the company not fulfill these legal requirements, the relevant board seat will remain empty. These companies are also obliged to determine their own voluntary quotas for their executive boards and the highest two levels of management by September 30, 2015 at the latest. This applies also to companies that are either listed or subject to codetermination. Even though they are not forced to the fixed quota, they also have to set voluntary quotas for their supervisory board. However, there are no government sanctions should companies fail to fulfill their own target quotas.

² K. Brenke, "Growing Importance of Women in the German Labor Market", DIW Economic Bulletin, no. 5 (2015): 51–61.

³ E. Holst and A. Kirsch, Women Executive Barometer 2015 (DIW Economic Bulletin, no. 4) (2015): 33–58; E. Holst et al., "Führungskräfte-Monitor 2015: Update 2001–2013", DIW Berlin: Politikberatung kompakt 100 (Berlin: 2015).

⁴ C. Goldin and C. Rouse, "Orchestrating Impartiality: The Impact of "Blind" Auditions on Female Musicians", *The American Economic Review* 4 (2000): 715–741; M. F. Bagues and B. Esteve-Volart, "Can Gender Parity Break the Glass Ceiling? Evidence from a Repeated Randomized Experiment", *Review of Economic Studies* 4 (2010): 1301–1328; M. de Paola and V. Scoppa, "Gender Discrimination and Evaluators' Gender: Evidence from Italian Academia", *Economica* 325 (2015): 162–188.

⁵ N. Dasgupta and S. Asgari, "Seeing is Believing: Exposure to Counter-stereotypic Women Leaders and its Effect on the Malleability of Automatic Gender Stereotyping", *Journal of Experimental Social Psychology* 5 (2004): 642–658; I. Bohnet et al., "When Performance Trumps Gender Bias: Joint versus Separate Evaluation", *Management Science* (forthcoming, 2015).

Box 1

Background Information on Wage Gaps and Discrimination

In the economic literature, discrimination is considered to be the most important factor in explaining the underrepresentation of women, whether it is preference-driven as in Becker (1957) or based on statistical characteristics such as in Phelps (1972) and Arrow (1973).¹ However, it is initially doubtful as to whether discrimination can persist on the demand side under competitive conditions. The stakeholders who are discriminated against and denied top positions in companies could offer their services at a lower price. Or they could offer better performance for the same price to businesses that discriminate less or not at all. This could ultimately lead to competitive advantages for non-discriminating enterprises looking to fill positions and would systematically push discriminating enterprises out of the market, assuming full competition.² However, empirical research indicates that gender discrimination certainly exists.

1 See, inter alia, J. G. Altonji and R. M. Blank, "Race and Gender in the Labor Market," in *Handbook of Labor Economics*, vol. 3, eds. O. Ashenfelter and D. E. Card (Amsterdam: 1999), 3143–3259. M. Bertrand, "New Perspectives on Gender," in *Handbook of Labor Economics*, eds. O. Ashenfelter and D. E. Card (Amsterdam: 2011), 1545–1592 shows that, particularly more recently, social norms are increasingly taken into consideration, but there are also alleged gender differences in terms of risk preferences and competitiveness.

2 See also A. Weber and C. Zulehner, "Competition and Gender Prejudice: Are Discriminatory Employers Doomed to Fail?," *Journal of the European Economic Association* 2 (2014): 492–521; Altonji and Blank, "Race and Gender." The labor market is not a perfect market because incomplete information, recruitment and adjustment costs, for example, restrict competition.

How Is Discrimination Measured?

Discrimination manifests itself, for example, in gender pay gaps identified in survey data. In Germany, there is a considerable pay gap which is substantial across the entire wage distribution³ and is also observed in executive levels of German companies.⁴ Compared to other European countries, Germany is at the lower end of country rankings with a wage gap of 22 percent compared to 16 percent in the EU as a whole.⁵

The part of the wage gap that cannot be explained by observable characteristics such as education, age, work

3 S. E. Black and A. Spitz-Oener, "Explaining Women's Success: Technological Change and the Skill Content of Women's Work," *Review of Economics and Statistics* 1 (2010): 187–194; D. Antonczyk et al., "Rising Wage Inequality, the Decline of Collective Bargaining, and the Gender Wage Gap," *Labour Economics* 5 (2010): 835–847.

4 A. Busch and E. Holst, "Gender-Specific Occupational Segregation, Glass Ceiling Effects, and Earnings in Managerial Positions: Results of a Fixed Effects Model," *SOEPapers on Multidisciplinary Panel Data Research* 357 (Berlin: 2011); J. Oehmichen et al., "Beyond Human Capital Explanations for the Gender Pay Gap Among Executives: Investigating Board Embeddedness Effects on Discrimination," *Business Research* 2 (2014): 351–380. For European companies, see W. Arulampalam et al., "Is There a Glass Ceiling over Europe? Exploring the Gender Pay Gap across the Wage Distribution," *Industrial and Labor Relations Review* 2 (2007): 163–186. For American companies, see M. Bertrand and K. F. Hallock, "The Gender Gap in Top Corporate Jobs," *Industrial and Labor Relations Review* 1 (2001): 3–21.

5 Antonczyk et al., "Rising Wage Inequality"; Eurostat, "Women earned on average 16% less than men in 2013 in the EU," news release 41 (2015), March 3, 2015, accessed September 21, 2015, <http://ec.europa.eu/eurostat/documents/2995521/6729998/3-05032015-AP-EN.pdf>.

Apart from the purely mechanical effect, i.e., an increase in the number of women in senior management positions, a gender quota also offers an opportunity to counter the impact of stereotypes. The present article is an attempt to explore the potential of a gender quota to dismantle gender stereotypes in the long term. The analysis will primarily draw on findings from studies in the field of behavioral economics.

Gender Stereotypes Undermine Recruitment of Best Candidates

Psychological studies have already shown that gender stereotypes exist in relation to types of professions⁶ and

6 M. A. Cejka and A. H. Eagly, "Gender-Stereotypic Images of Occupations Correspond to the Sex Segregation of Employment", *Personality and Social Psychology Bulletin* 4 (1999): 413–423.

senior management positions and styles⁷ and that these preconceptions have a number of undesirable effects.

Economic studies have also demonstrated the effects of gender stereotypes both on the labor supply⁸ and the labor demand sides. On the demand side, studies have proven that a subconscious gender bias affects recruit-

7 A. H. Eagly and S. J. Karau, "Role Congruity Theory of Prejudice Toward Female Leaders," *Psychological Review* 3 (2002): 573–598; N. Ellemers et al., "Women in High Places: When and Why Promoting Women into Top Positions Can Harm Them Individually or as a Group (and How to Prevent this)", *Research in Organizational Behavior* 1 (2012): 163–187.

8 V. K. Gupta et al., "Differences Between Men and Women in Opportunity Evaluation as a Function of Gender Stereotypes and Stereotype Activation", *Entrepreneurship: Theory & Practice* 4 (2013): 771–788; P. G. Davies et al., "Clearing the Air: Identity Safety Moderates the Effects of Stereotype Threat on Women's Leadership Aspirations", *Journal of Personality and Social Psychology* 2 (2005): 276–287.

experience, and so on is referred to as the unexplained residual and is often interpreted as discrimination. However, this interpretation is the subject of some controversy. The challenge here, for example, is that some characteristics are simply not observable, for instance, actual individual-specific productivity. On the other hand, although other features are observable, they might already be affected by anticipated discrimination, such as self-selection in certain types of jobs.⁶

Gender discrimination is confirmed using economic field experiments. In addition to audit or correspondence studies⁷ comparing discrimination based on the successful recall or appointment of identical applications (apart from gender) for identical jobs,⁸ there are also "blind" studies, such as that by Goldin/Rouse (2000).⁹ These show unique gender discrimination when appointing individuals to positions in orchestras. A curtain placed between applicants and decision-makers,

6 G. Azmat and B. Petrongolo, "Gender and the Labor Market: What Have we Learned from Field and Lab Experiments?," *Labour Economics* 30 (2014): 32-40; M. Beblo et al., *Methodological Issues Related to the Analysis of Gender Gaps in Employment, Earnings and Career Progression: Final Report*. Project carried out on behalf of the European Commission Employment and Social Affairs DG (Mannheim: 2003).

7 D. Weichselbaumer, "Is It Sex or Personality? The Impact of Sex Stereotypes on Discrimination in Applicant Selection," *Eastern Economic Journal* 2 (2004): 159-186; J. Guryan and K. K. Charles, "Taste-based or Statistical Discrimination: The Economics of Discrimination Returns to its Roots," *The Economic Journal* 572 (2013): F417-F432.

8 For an overview, see Azmat and Petrongolo "Gender and the Labor Market."

9 C. Goldin and C. Rouse, "Orchestrating Impartiality: The Impact of "Blind" Auditions on Female Musicians," *The American Economic Review* 4 (2000): 715-741.

ment processes,⁹ investment behavior,¹⁰ and the assessment of specific female personality traits (risk preferences¹¹ and social preferences¹²). The studies also show that these assessments are subconscious, automatic, and independent of gender.¹³ Economic studies also analyze the impact of stereotypes on the labor supply side, based

9 Goldin and Rouse, "Orchestrating Impartiality"; Bagues and Esteve-Volart, "Gender Parity"; de Paola and Scoppa, "Gender Discrimination."

10 A. Niessen-Ruenzi and S. Ruenzi, "Sex Matters: Gender Bias in the Mutual Fund Industry", *SSRN Electronic Journal* (forthcoming, 2015).

11 C. C. Eckel and P. J. Grossman, "Forecasting Risk Attitudes: An Experimental Study Using Actual and Forecast Gamble Choices", *Journal of Economic Behavior and Organization* 1 (2008): 1-17; P. J. Grossman, "Holding Fast: The Persistence and Dominance of Gender Stereotypes", *Economic Inquiry* 1 (2013): 747-763.

12 J. Andreoni and R. Petrie, "Beauty, Gender and Stereotypes: Evidence from Laboratory Experiments", *Journal of Economic Psychology* 1 (2008): 73-93.

13 Bagues and Esteve-Volart, "Gender Parity"; E. Reuben et al., "How Stereotypes Impair Women's Careers in Science", *Proceedings of the National Academy of Sciences* 12 (2014): 4403-4408.

enabling a blind audition, helped increase the share of female musicians in orchestras.

Imperfect Information on the Labor Market

Not unlike in the labor market in general, information on the productivity and quality of services offered in the market for executives is imperfect. The demand side attempts to generate ex ante information that allows conclusions to be drawn about the quality of candidates. The decision to appoint a male or female candidate also sends out corresponding signals ex post which are received by stakeholders and shareholders and may imply a correlation in terms of corporate performance and/or strategy.

Some useful information about the quality of candidates can be deduced from their educational background and labor market experience. Screening can serve to collect further individual-specific and productivity-related information, but this entails considerable spending (money, time, and energy). In addition, far less costly group-specific information is used, based on alleged knowledge of the members of the social group to which candidates in question are assigned according to easily accessible personal characteristics (such as gender).¹⁰ Group-specific information per se is problematic because it implies an individual's productivity according to the group mean and thus affects and stereotypes decisions based on alleged statistical findings.

10 Altonji and Blank "Race and Gender"; M. M. Vendrik and C. Schwioren, "Identification, Screening and Stereotyping in Labour market Discrimination," *Journal of Economics* 2 (2010): 141-171.

on experimental design. This has the advantage of allowing us to interpret the findings in the light of results of socio-psychological studies¹⁴ and to derive potential causal conclusions from this.¹⁵ Stereotypes are increasingly also identified using implicit measurement tech-

14 J. Müller and C. Schwioren, "Can Personality Explain What is Underlying Women's Unwillingness to Compete?", *Journal of Economic Psychology* 3 (2012): 448-460; N. Iriberry and P. Rey-Biel, "Let's (not) Talk about Sex: The Effect of Information Provision on Gender Differences in Performance under Competition", *Barcelona GSE Working Paper Series* (2011); P. J. Grossman, et al., "Leadership and Gender: An Experiment", *Discussion Paper* (2012); K. B. Coffman, "Evidence on Self-Stereotyping and the Contribution of Ideas", *The Quarterly Journal of Economics* 4 (2014): 1625-1660.

15 R. G. Fryer et al., "Exploring the Impact of Financial Incentives on Stereotype Threat: Evidence from a Pilot Study", *The American Economic Review* 2 (2008): 370-375; T. S. Dee, "Stereotype Threat and the Student-Athlete", *Economic Inquiry* 1 (2014): 173-182; A. Boschini et al., "Constructing Gender Differences in the Economics Lab", *Journal of Economic Behavior and Organization*, vol. 84, no. 3 (2012): 741-752; Gupta et al., "Differences Between Men and Women."

Box 2

Biased Decisions through Stereotypes

Behavioral economics has already confirmed that human behavior is affected by biased perceptions or incorrect beliefs. People choose information, ignore it, or interpret it on the basis of their inherent beliefs and horizons of experience, subconsciously or consciously. They may even make decisions based on heuristics and allow themselves to be influenced by the context of the situation, by emotions, or by social pressure.¹ Irrespective of the form they take, bias leads to unintended, implicit discrimination not based on rational decision-making considerations.²

What Are Stereotypes?

Stereotypes have the important function of simplifying complex relationships. They are disseminated as a part of our beliefs, culturally accepted and widely known. They organize the social world into categories (such as woman/man, locals/foreigners) and thus run the risk of ascribing real facts to individuals, though these may in fact be generalizations based on an alleged group affiliation. This gives rise, for instance, to assertions about someone being "typically female" (buys lots of shoes) or "typically male" (football fan). Personality or physical traits, forms of behavior, or abilities can therefore be expressed as positive or negative. Stereotypes establish in early childhood simplified representations of the world in people's minds and are an important form of social knowledge, allowing instantaneous associations with a social group, subconsciously and automatically.

Consequences of Stereotypes

Stereotypes are not always false. However, when individuals are tarred with the brush of alleged group affiliation, they are marginalized and the individual traits, contexts, and skills ignored.³

1 S. DellaVigna, "Psychology and Economics: Evidence from the Field," *Journal of Economic Literature* 2 (2009): 315–372.

2 I. Bohnet et al., "When Performance Trumps Gender Bias: Joint versus Separate Evaluation," *Management Science* (forthcoming, 2015).

3 C. Stangor, "The Study of Stereotyping, Prejudice, and Discrimination Within Social Psychology: A Quick History of Theory and Research," in *Handbook of Prejudice, Stereotyping, and Discrimination*, ed. D. T. Nelson (2009), 1–22; M. Shih et al., "Stereotype Performance Boosts: The Impact of Self-Relevance and the Manner of Stereotype Activation," *Journal of Personality and Social Psychology* 3 (2002): 638–647; R. J. Cook and S. Cusack, *Gender Stereotyping: Transnational Legal Perspectives*. Pennsylvania Studies in Human Rights (Philadelphia, PA: 2010).

They can also trigger a form of threat (stereotype threat) for those who identify themselves with the social group the stereotype relates to.⁴ Stereotypes therefore contain an inherent risk of being self-fulfilling, for example, by avoiding certain professional spheres, as studies have shown.⁵

What also needs to be taken into account is that a gender stereotype is coincidentally harming both women and men. One example is that of the widely held stereotype of men being incapable to take over care giving roles: It forces men into the breadwinning role and restrains them from engaging in care activities, yet coincidentally imposes the care giving role on women. The decision-making power is taken away from both, men and women, because of the assumption that the woman is of course responsible for motherhood and the man for family financial support.⁶

Stereotypes and Their Impact in Economic Theory

Theoretical considerations for economic models can be found in the following studies: while Dee (2014) derives the effects of a stereotype threat on individual abilities and efforts from the disutility in the educational production function, Bordalo et al (2014) use a broader approach, arguing that gender stereotypes determine individual beliefs about gender differences and how they survive.⁷ They show that gender stereotypes and – by extension, personal self-assessment – can be held responsible for the withdrawal of women from traditionally male domains.

4 P. B. S. Carr and M. Claude, "Stereotype Threat Affects Financial Decision Making," *Psychological Science* 10 (2010): 1411–1416.

5 P. G. Davies et al., "Clearing the Air: Identity Safety Moderates the Effects of Stereotype Threat on Women's Leadership Aspirations," *Journal of Personality and Social Psychology* 2 (2005): 276–287; V. K. Gupta et al., "Differences Between Men and Women in Opportunity Evaluation as a Function of Gender Stereotypes and Stereotype Activation," *Entrepreneurship: Theory & Practice* 4 (2013): 771–788.

6 Schmitt, N., "Gender Stereotypes and Individual Economic Decision-Making". Dissertation, (Frankfurt/Oder: 2014); Cook, R. J., Cusack, S. "Gender Stereotyping".

7 T. S. Dee, "Stereotype Threat and the Student-Athlete," *Economic Inquiry* 1 (2014): 173–182; P. Bordalo et al., "Stereotypes," *NBER Working Paper* 20106 (2014).

niques¹⁶ which provide evidence of biased decisions.¹⁷ These studies relate their findings regarding gender differences in risk preferences and competitiveness to women's underrepresentation in senior management.¹⁸ Only recently have studies underlined that these differences are less pronounced than was generally believed to be the case¹⁹ and we can assume that they are probably the result of social factors²⁰ or persist because of stereotypes.²¹ Hence, gender stereotypes pose a problem—also when it comes to the selection and recruitment of the best candidates. Consequently, discussions on the pros and cons of the gender quota should ensure they take the impact of gender stereotypes into consideration.

Concerns

In some sectors of society, the introduction of a gender quota provoked a public outcry.²² Those against the quota have alleged that this type of legislation would be a major infringement of entrepreneurial freedom and have a negative impact on corporate profitability; women would be stigmatized as “quota women” and men would be discriminated against, and besides, according to this argument, there are too few women of the requisite caliber in the talent pool in any case.

Can a Gender Quota Compromise Company Performance?

Research findings on the effects of increased gender parity in senior management are fragmented. The subject continues to be hotly debated and many more questions remain open than clear causal correlations identified.²³ As a rule, the economic literature uses efficiency and performance criteria to determine the effects of

quotas.²⁴ Despite a lack of solid evidence, this branch of the literature continues to dominate, arguably also because performance indicators are relatively easy to observe and, consequently, it is hoped that they will provide some indication of the efficiency of committee decision-making processes which cannot normally be observed.²⁵

In order to work out the impact on company performance of increased representation of women in senior management, studies draw on market- or accounting-based indicators such as Tobin's Q or return on assets (ROA), return on equity (ROE), for example.²⁶ The key international studies in the field by Ahern/Dittmar (2012) and Matsa/Miller (2013) treat the introduction of the fixed and mandatory gender quota in Norway in 2006 as a natural experiment.²⁷ Both these studies conclude that the quota was successful in increasing the share of women. In the study by Ahern/Dittmar (2012), the negative effects on company performance are attributed to the significantly lower age and consequently more limited experience of the newly appointed women board members. Matsa/Miller (2013) attribute the effects to higher labor costs resulting from a smaller number of redundancies during the observation period. These findings are contrary to those of the study by Dale-Olsen et al. (2013) who concluded that the effects on company performance in general could be neglected.²⁸ The study also points out that very little time has passed since the quota was introduced, making it impossible to draw reliable medium- or long-term conclusions. Possible contaminating effects of the financial crisis in 2008 can also not be ruled out. Essentially, apart from the purely mechanical effect, i.e., an increased share of women on the relevant board, it is only possible to draw reliable conclusions about the short term. Sabatier (2015)

16 For example, Implicit Association Test (IAT); for an overview of measurement techniques, see J. Dietrich et al., “Internalized Gender Stereotypes Vary across Socioeconomic Indicators”, SOEPpapers on Multidisciplinary Panel Data Research 558 (Berlin: 2013).

17 L. Beaman et al., “Powerful Women: Does Exposure Reduce Bias?”, *The Quarterly Journal of Economics* 4 (2009): 1497-1540.

18 For an overview, see M. Bertrand, “New Perspectives on Gender”, in *Handbook of Labor Economics*, eds. O. Ashenfelter and D. E. Card (Amsterdam: 2011), 1545-1592 and M. Niederle, “Gender”, in *Handbook of Experimental Economics Results*, eds. J. H., Kagel and A. E. Roth (Amsterdam: forthcoming): 2.

19 J. A. Nelson, “Not-So-Strong Evidence for Gender Differences in Risk Taking”, *Feminist Economics* (2015): 1-29; J. A. Nelson, “Are Women Really More Risk-Averse than Men? A Re-Analysis of the Literature Using Expanded Methods”, *Journal of Economic Surveys* (2014): 1-20.

20 U. Gneezy et al., “Gender Differences in Competition: Evidence From a Matrilineal and a Patriarchal Society”, *Econometrica* 5 (2009): 1637-1664.

21 P. Bordalo et al., “Stereotypes”, NBER Working Paper 20106 (2014).

22 “Pressekompass: Streit über die Frauenquote - das sagen die Medien”, *Spiegel Online*, November 25, 2014, accessed August 26, 2015, <http://www.spiegel.de/politik/deutschland/pressekompass-zur-geplanten-frauenquote-fuer-aufsichtsrate-a-1004986.html>.

23 A. J. Hillman, “Board Diversity: Beginning to Unpeel the Onion”, *Corporate Governance: An International Review* 2 (2015): 104-107.

24 See, for example, H. Holzer and D. Neumark, “Assessing Affirmative Action”, *Journal of Economic Literature* 3 (2000): 483-568; H. Fang and A. Moro, “Theories of Statistical Discrimination and Affirmative Action: A Survey”, in *Handbook of Social Economics*, eds. J. Benhabib et al., (Amsterdam: 2011), 133-200.

25 D. A. Carter et al., “The Gender and Ethnic Diversity of US Boards and Board Committees and Firm Financial Performance”, *Corporate Governance: An International Review* 5 (2010): 396-414; A. Kirsch, “The Gender Composition of Corporate Boards in Europe: Explanations, Findings and Future Directions (2014); Hillman, “Board Diversity.”

26 For an overview of the indicators used by the individual studies, see, for example, J. Joecks et al., “Gender Diversity in the Boardroom and Firm Performance: What Exactly Constitutes a “Critical Mass?”, *Journal of Business Ethics* 1 (2013): 61-72.

27 The Norwegian law affects the board of directors requiring to reach a 40 percent share of women. It was already implemented on a voluntary basis in 2003. Since companies have not complied till 2005, the law became mandatory. K. R. Ahern and A. K. Dittmar, “The Changing of the Boards: The Impact on Firm Valuation of Mandated Female Board Representation”, *The Quarterly Journal of Economics*, 1 (2012): 137-197; D. A. Matsa and A. R. Miller, “A Female Style in Corporate Leadership? Evidence from Quotas”, *American Economic Journal: Applied Economics* 3 (2013): 136-169.

28 H. Dale-Olsen et al., “Diversity among Norwegian Boards of Directors: Does a Quota for Women Improve Firm Performance?”, *Feminist Economics* 4 (2013): 110-135.

finds clear and positive effects regarding company performance in response to a quota system implemented in France. Yet the announcement of the fixed gender quota for the two top management levels resulted in an increase of the women share as well as in a substantive improvement of firm performance.²⁹

For Germany, too, to date, it has not been possible to prove that the increased participation of women on supervisory boards has had a statistically significant general performance effect.³⁰ Joecks et al. (2013) show that undifferentiated effects are not to be expected, either. Even before quota legislation was introduced in Germany, the authors identified that a share of women of approximately 30 percent results in a critical mass and only when this percentage is reached can we observe the favorable impact on company performance of gender diversity on supervisory boards. This corroborates the literature on the effects of group gender composition on team performance, according to which only maximum gender diversity actually results in the desired positive effects.³¹

Further, when analyzing the effect of a gender quota, we should not neglect to factor in the perspectives of stakeholders and shareholders (analysts, investors, lenders, etc.).³² It is possible that these individuals harbor gender stereotypes concerning perceptions of gender differences in management style, aptitude, behavior, and preferences. Based on this, the assumption is made that an increased share of women would result in less favorable decisions. Some studies have already observed that this situation has had a negative impact on company share prices, resulting in investors also losing money.³³ The answer to this question otherwise still remains to be seen.³⁴

Overall, it can be stated that it has not always been possible to eliminate methodological uncertainties associated with causal relationships in some studies.³⁵ In order to conduct a systematic evaluation of the gender quota im-

plemented in Germany, we would now need to invest in data quality and in a methodological concept.

Does a Gender Quota Discriminate against Men?

It is claimed that through their preferential treatment for an underrepresented group, quotas result in reverse discrimination against the group that is not targeted by the quota.³⁶ The argument is that when women are granted access to managerial positions, the same number of more highly qualified men is rejected, despite the fact that, due to their qualification advantage, they would have been appointed to these positions in the pre-quota era. This, in turn, would result in economic inefficiency because of the decline in the level of qualifications. In order to identify this effect, we would need to determine the share of more highly qualified men who would have to be bypassed to ensure that the share of women stipulated by the quota is achieved. Balafoutas/Sutter (2012), Niederle et al. (2013), and Calsamiglia et al. (2013)³⁷ demonstrate that this can experimentally verified since discrimination as a causal effect can be observed without examining interactions between the "gender" variable and the result variables: they establish that quotas significantly increase both the motivation of women to participate in competition and their performance. According to the authors, men are therefore not superseded by less qualified women. Both these specific studies and the literature interpret these findings as evidence that an intervention of this type does not result in reverse discrimination and certainly not in inefficiencies.³⁸

Does the Gender Quota Reduce the Quality of the Talent Pool?

According to another frequently voiced concern, women are less qualified than men, meaning that companies would now have a less skilled pool of candidates to choose from. Obviously, on the one hand, this refers to feedback effects that impact the acquisition of human capital due to both past and anticipated discrimination

29 Sabatier, M., "A Women's Boom in the Boardroom: Effects on Performance?", *Applied Economics*, 26 (2015), 2717-2727.

30 H. Lindstädt et al., *Frauen in Führungspositionen: Auswirkungen auf den Unternehmenserfolg* (Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (BMFSFJ), 2012); K. Fehre et al., „Förderung von Frauen in Führungspositionen: Bezugsrahmen und empirische Analyse der unternehmerischen Maßnahmen“, *Schmalenbachs Zeitschrift für betriebswirtschaftliche Forschung: Zfbf* 1 (2014): 37-68.1, 37-68.

31 J. Apestequia et al., "The Impact of Gender Composition on Team Performance and Decision Making: Evidence from the Field", *Management Science* 1 (2012): 78-93.

32 Dale-Olsen et al., "Diversity among Norwegian Boards"; Hillman, "Board Diversity."

33 F. Dobbin and J. Jung, "Corporate Board Gender Diversity and Stock Performance: The Competence Gap or Institutional Investor Bias?", *North Carolina Law Review* 3 (2011): 809-838; Niessen-Ruenzi and Ruenzi, "Sex Matters."

34 Hillman, "Board Diversity."

35 D. Ferreira, "Board Diversity: Should We Trust Research to Inform Policy?", *Corporate Governance: An International Review* 2 (2015): 108-111.

36 J. S. Leonard, "Women and Affirmative Action", *Journal of Economic Perspectives* 1 (1989): 61-75; G. Charness and P. Kuhn, "Lab Labor: What Can Labor Economists Learn from the Lab?", in *Handbook of Labor Economics*, eds. O. Ashenfelter and D. E. Card (Amsterdam: 2011), 229-330; M. J. Fischer and D. S. Massey, "The Effects of Affirmative Action in Higher Education", *Social Science Research* 2 (2007): 531-549.

37 L. Balafoutas and M. Sutter, "Affirmative Action Policies Promote Women and Do Not Harm Efficiency in the Laboratory", *Science* 6068 (2012): 579-582; M. Niederle et al., "How Costly Is Diversity? Affirmative Action in Light of Gender Differences in Competitiveness", *Management Science* 1 (2013): 1-16; C. Calsamiglia et al., "The Incentive Effects of Affirmative Action in a Real-Effort Tournament", *Journal of Public Economics*, vol. 98, no. 2 (2013): 15-31.

38 M.-C. Villeval, "Ready, Steady, Compete", *Science* 6068 (2012): 544-545.

Box 3

Methodological Challenges

The most important findings currently available on the effects of a gender quota are from studies dealing with the introduction of a quota in Norway, known as a natural experiment.

Methodologically, this means it is possible to identify a causal effect if there is an exogenous variation equal to the impact of the policy measure. Natural experiments are well established in economic research but require some criteria on the data that are difficult to achieve.

These are the biggest challenges that can also be seen in studies on the women's quota in Norway and can be held responsible for the sometimes very different findings: (1) The exogeneity of the variable in the share of women in the pre-quota era. This defines the intensity of the impact of the women's quota and requires that companies do not systematically differ in unobserved characteristics. (2) Defining the timing of the announcement, since any anticipation of the introduction of a quota will lead to adaptations. (3) The choice of the control group. (4) Selection effects, since the appointment of the supervisory boards is not random. (5) Effects on the dependent variable that occur when other general conditions are altered.

There are no clear mechanisms to explain the effect of the quota which makes it difficult to compare the studies. In addition, the choice of indicators of an impact has so far been inconsistently applied to only short-term effects. Further effects, such as internal wage distribution, production processes, or the structures of investment and spending have been completely ignored to date.¹

¹ On this, see also R. B. Adams et al., "Board Diversity: Moving the Field Forward," *Corporate Governance: An International Review* 2 (2015): 77-82.

Requirements of a Systematic Evaluation

A systematic evaluation requires high-quality data which are currently lacking. Furthermore, there is no concept for evaluating the impact of the quota in Germany. In addition to the standard corporate performance indicators, this might also include indicators that are less susceptible to discrimination.² Examples include the added value of an individual male or female employee, employee satisfaction, absence due to sickness, length of employment, internal corporate processes, structures of investment and spending, and in-house successes as well as the share of women in the various levels of the company and promotions achieved.³

Longer-term data (including individual-specific characteristics such as age, education, and other committee posts) on members of the supervisory and executive boards, and the various management levels and their networks should also be made available. Only then will more detailed statements on the longer-term success of the gender quota be possible. As has been shown, field and laboratory experiments would be a useful addition because they would not only guarantee control of the randomness of the intervention, but, beyond structural indicators, could also determine targeted individual-specific behavioral and cognitive-related data.⁴

² L. Flabbi et al., "Do Female Executives Make a Difference? The Impact of Female Leadership on Gender Gaps and Firm Performance," *CEPR Discussion Papers* (2014).

³ H. Holzer and D. Neumark, "Assessing Affirmative Action," *Journal of Economic Literature* 3 (2000): 483-568; A. Kunze and A. R. Miller, "Women Helping Women? Evidence from Private Sector Data on Workplace Hierarchies," *IZA Discussion Paper* 8725 (2014); A. J. Hillman, "Board Diversity: Beginning to Unpeel the Onion," *Corporate Governance: An International Review* 2 (2015): 104-107.

⁴ P.-J. Bezemer et al., "Inside the Boardroom: Exploring Board Member Interactions," *Qualitative Research in Accounting & Management* 3 (2014): 238-259.

according to economic theory.³⁹ These effects would also explain potential differences in the skills of future generations.⁴⁰ However, Coate/Loury (1993) show that the improved prospects of promotion created by quotas even provide incentives to invest in human capital since the chances of amortization have increased. Yet keep-

³⁹ See the overview on intergenerational transmission of inequality in S. J. Lundberg and R. Startz, "Inequality and Race: Models and Policy" (mimeo, 1998).

⁴⁰ J. G. Altonji and R. M. Blank, "Race and Gender in the Labor Market", in *Handbook of Labor Economics*, ed. O. Ashenfelter (Amsterdam: 1999), vol. 3, 3143-3259.

ing the intellectual requirements of the group that is advantaged by the quota too low runs the risk that they might react to this by reducing investment in human capital (*patronizing equilibrium*), thus confirming existing negative stereotypes. Consequently, there is the concern that this is precisely when quotas might backfire and reinforce existing negative stereotypes if no qualified women are found for the supervisory board seats or if less qualified women are deliberately selected.⁴¹ Similarly, there is a concern regarding the "golden skirts" phe-

⁴¹ See the effect referred to as "glass cliff" in the literature. Ellemers et al., "Women in High Places."

nomenon to accompany that of “golden trousers.” These terms are used to describe a situation where the candidate pool for supervisory boards is too small, so the recruitment process ultimately leads to individuals sitting on several boards at once, which in effect prevents the desired diversity from being achieved. Besides the increased workload this situation would then also lead to for women, multiple board membership would also impair the performance of the supervisory boards, which is a widely criticized consequence.⁴²

According to studies by Balafoutas/Sutter (2012), Niederle et al. (2013), and Calsamiglia et al. (2013), quotas have, however, had proven positive effects on the self-selection and achievements of women: they are now more prepared to compete and demonstrate an improvement in their performance even since the announcement to introduce a quota.⁴³ Although studies on the effects of quotas in Norway with survey datasets show that the newly appointed women are younger compared to men and also have less managerial experience,⁴⁴ Bertrand et al. (2014) even find a significant increase in educational attainments of the newly appointed women.

According to Stark/Hyll (2014),⁴⁵ overall, the changes in the total investment in human capital of the previously under- and overrepresented groups have not been proven to lead to welfare losses. They see their findings from a model-based theoretical line of argumentation, according to which they expect a positive net effect, in line with the observation of an increasing share of women in tertiary education in Norway and the introduction of the quota for supervisory boards there.

Is There Any Truth in the “Quota Woman” Stigma?

The general public occasionally resort to the notion of the “quota woman”,⁴⁶ implying that positions reserved for men or more qualified women before the introduc-

tion of quotas will subsequently be given to less qualified and less competent women.

As has been established by research on stereotypes, for instance, on stereotype threat (see Box 2), a deterioration in performance may occur in contexts where negative stereotypes exist. As a result, the only reason why women, who are in fact perfectly competent, do not make their mark in the traditionally male connoted positions is because they perceive themselves to be incompetent and stereotypical and expect others to do the same. The very existence of the “quota woman” stereotype in the sense of recruitment of incompetent women means that women thus stigmatized are also likely to perceive themselves as incompetent.⁴⁷ In fact, behind the “quota woman” is a gender bias based on the assumption that women in general are fundamentally different to men in terms of their behavior, preferences, and management style, or are consequently less suited to managerial positions. And that, in fact, need not apply to a single woman or man. In any case, there is no empirical evidence to support the notion that “quota women” are incompetent.⁴⁸ This is one of the reasons why the term “gender quota” is preferable to “women’s quota.”

Quota's Potential to Reduce Gender Bias

The gender quota could have positive effects, particularly in the long term, if it reduces gender bias, first, by improving recruitment decisions in favor of women (labor demand side) and, second, by motivating women and encouraging them to enter fields that were previously the reserve of men (labor supply side).⁴⁹ This would also inspire future generations to acquire human capital as well as professional experiences, empowering them to confidently aspire to and hold these positions. Consequently, the realized allocation of individuals resulting from the gender quota makes it possible to improve efficiency because it renders gender stereotypical assumptions about the quality of the employee superfluous.⁵⁰

⁴² J. R. Oehmichen, S. Marc, and Michael Wolff, “Busy Board in a Two-tier System: Old-boys Network or Efficient Monitoring Technology?”, (mimeo, 2009). In their study, “Changing of the Boards” Ahern and Dittmar find evidence of an increase in multiple board memberships for Norway in the post-quota era which they attribute to the increased numbers of women.

⁴³ Field experiments also demonstrate this effect on the recruitment and performance of women. See, inter alia, M. Ibañez et al., “Sorting Through Affirmative Action: Three Field Experiments in Colombia”, DICE Discussion Paper (Düsseldorf: 2015) for a discussion of a series of field experiments in Colombia, which also relate their findings to personality traits.

⁴⁴ Ahern and Dittmar, “Changing of the Boards.”

⁴⁵ O. Stark and W. Hyll, “Socially Gainful Gender Quotas”, *Journal of Economic Behavior & Organization* (2014):173–177.

⁴⁶ FOCUS Online, accessed August 31, 2015, www.focus.de/magazin/videos/focus-titel-wir-wollen-keine-frauen-quote_vid_35185.html. For scientific studies on this, see J. Whelan and R. Wood, “Targets and Quotas for Women in Leadership: A Global Review of Policy, Practice and Psychological Research” (Gender Equality Project, Centre for Ethical Leadership, Melbourne Business School, 2012).

⁴⁷ L. M. Leslie et al., “The Stigma of Affirmative Action: A Stereotyping-Based Theory and Meta-Analytic Test of the Consequences for Performance”, *Academy of Management Journal* 4 (2014): 964–989.

⁴⁸ Whelan and Wood, “Targets and Quotas” and also Leslie et al., “Stigma of Affirmative Action”, effects 2014 0001-4273 file:///D:/k_prij-frauenquote/literatur/Leslieetal_2014_The Stigma of Affirmative Action A Stereotyping-Based Theory and Meta-Analytic Test of the Consequences for Performance.pdf 10.5465/amj.2011.0940 explain negative effects of stereotypes using a metastudy.

⁴⁹ A. M. Koenig et al., “Are Leader Stereotypes Masculine? A Meta-Analysis of Three Research Paradigms”, *Psychological Bulletin* 4 (2011): 616–642.

⁵⁰ S. Coate and G. C. Loury, “Will Affirmative-Action Policies Eliminate Negative Stereotypes?”, *The American Economic Review* 5 (1993): 1220–1240.

Greater Share of Women Increases Visibility

The gender quota has the potential to create positive role models through its purely mechanical effect and thus to produce a signaling effect,⁵¹ giving rise to spillover effects in the form of increased representation of women at management level,⁵² as well as at lower levels of the company. Some studies find spillover effects in terms of the promotion prospects of women throughout the entire workforce,⁵³ which also attracts more highly qualified young women entering the labor market.⁵⁴ This could also counteract the “queen bee” phenomenon which refers to women who react to the gender bias in companies by emphasizing their traditionally masculine characteristics and cultivating a masculine management style. Since they distance themselves from other women and, as a result, fail to promote or support them, the career opportunities of the entire group of women are also limited.⁵⁵

The signaling effect of positive role models provides an opportunity to access not only those already working for a company. Girls and young women might also feel encouraged to more frequently pursue a university education, particularly business degrees and in what are known as the STEM fields (Science, Technology, Engineering and Mathematics).⁵⁶ This could lead to a better gender balance in certain sectors, thus reducing horizontal segregation because certain task contents would no longer be perceived as the reserve of men.

Increasing the Share of Women Reduces Risk of Being Devalued as a “Quota Woman”

Studies on Germany already show that the greater the share of men with prior experience of women on the shareholder side of supervisory boards, the more likely women are also to be appointed to the supervisory

board.⁵⁷ Being confronted⁵⁸ with counterstereotypes in this way therefore leads to the desired changes in the stereotypical beliefs relating to gender differences in management styles and skills and, in particular, the suitability of female executives.⁵⁹ The fact that the legislation provides for a gender quota of 30 percent is in line with the study by Joecks et al. (2013) which identifies that for Germany a critical mass is reached at precisely this point.

Conclusion

The gender quota in its current form stipulates an increase in the share of women on supervisory boards of listed companies in Germany that also have employee representation on their supervisory boards (full codetermination) with the consequence that if the threshold is not fulfilled, the number of seats corresponding to this proportion will remain empty. Furthermore, it obliges companies to set themselves target quotas for the executive board and the two highest senior management levels—this applies also to companies only fulfilling one of the two criteria, (i.e., either listed or subject to codetermination). No sanctions are planned to date for non-compliance with these self-imposed quotas.

Whether the gender quota will be successful beyond the purely mechanical effect of increasing the share of women on supervisory boards depends primarily on whether companies meet the law’s stipulation on increasing the share of women.⁶⁰ To what extent this will lead to second-round effects⁶¹ as well as spillover effects that go beyond easily measurable criteria of company performance is dependent on dismantling gender stereotypes.

The mechanism for achieving this would be that an increased share of women in senior management in companies, would in turn provide the opportunity for them to be perceived in this previously male-dominated sphere⁶² and for their actual abilities to be recognized, thus challenging gender stereotypes. This would bring changes in organizational culture in its wake and contribute to social and cultural transformation. Ultimately, this would also create a competitive edge because pre-

⁵¹ Fehre et al., “Förderung von Frauen.”

⁵² D. A. Matsa and A. R. Miller, “Chipping away at the Glass Ceiling: Gender Spillovers in Corporate Leadership”, *The American Economic Review* 101(3) (2011): 635-639.

⁵³ A. Kunze and A. R. Miller, “Women Helping Women? Evidence from Private Sector Data on Workplace Hierarchies”, IZA Discussion Paper 8725 (2014).

⁵⁴ J. Oehmichen et al., “Der Einfluß der Aufsichtsratszusammensetzung auf die Präsenz von Frauen in Aufsichtsräten”, *Schmalenbachs Zeitschrift für betriebswirtschaftliche Forschung* (2010): 503-532. Since the period of time since the introduction of the quota in Norway is too short, comprehensive spillover effects cannot generally be confirmed. M. Bertrand et al., “Breaking the Glass Ceiling? The Effect of Board Quotas on Female Labor Market Outcomes in Norway”, NBER Working Paper 20256 (2014).

⁵⁵ Ellemers et al., “Women in High Places;” Kunze and Miller, “Women Helping Women?”

⁵⁶ Ferreira, “Board Diversity.”

⁵⁷ Oehmichen et al., “Einfluß der Aufsichtsratszusammensetzung.”

⁵⁸ R. M. Kanter “Some Effects of Proportions on Group Life: Skewed Sex Ratios and Responses to Token Women”, *American Journal of Sociology* (1977): 965-990; H. Finseraas et al., “Exposure to Female Colleagues Breaks the Glass Ceiling - Evidence from a Combined Vignette and Field Experiment”, (computer printout, 2015).

⁵⁹ Beaman et al., “Powerful Women”; Dasgupta and Asgari, “Seeing is Believing”; Bohnet et al., “When Performance Trumps.”

⁶⁰ M. Weckes, 30 % Quote im Aufsichtsrat: Eine Eröffnungsbilanz. Mitbestimmungsförderung: Report (Hans Böckler Stiftung, 2015).

⁶¹ Dale-Olsen et al., “Diversity among Norwegian Boards.”

⁶² Koenig et al., “Are Leader Stereotypes Masculine?”

viously highly qualified yet unexploited talent would be tapped into.

This process can also be supported by other accompanying measures, which focus on the reconciliation of work and personal life for both women and men so as to create a level playing field. Initial steps have already been taken with the introduction of the new parental allowance known as *Elterngeld Plus* and the expansion of external childcare.⁶³ Further measures such as the transition from joint income splitting for tax purposes to

63 C. K. Spieß and K. Wrohlich, "Elterngeld Plus: der Kurs stimmt!": Kommentar", DIW Wochenbericht, no. 15 (2014): 332.

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real family income splitting (where taxes are based on the number of own children) will have to follow.⁶⁴ This might also include pursuing the concept of family working hours (known as *Familienarbeitszeit*)⁶⁵ and to facilitate outsourcing household tasks.

64 C. K. Spieß, "Elterngeld und Ehegattensplitting: Nach der Reform ist vor der Reform: Kommentar", DIW Wochenbericht, no. 26 (2015): 620.

65 K.-U. Müller et al., "Bessere Vereinbarkeit von Familie und Beruf durch eine neue Lohnersatzleistung bei Familienarbeitszeit", DIW Wochenbericht, no. 46 (2013): 3-11; K.-U. Müller and K. Wrohlich, "Familienarbeitszeit: nicht weniger, sondern mehr Arbeitskraft: Kommentar", DIW Wochenbericht, no. 4 (2014): 68.



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